CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/WNo.13/KRIDL/CSR-09/134a/CUBE/2016-17 13.09.2016

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

* Customer	: **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	: **Technical Manager (West),** KRIDL, Bangalore.
* Name of the work	: Improvements of CC roads and drains at Lake side Avenue Defence Colony and Shanthi Layout and other roads in Ward No. 13, Shettyhalli Sub Division, BBMP, Bangalore.
Reference	: AEE/SSD/PR/61/2016-17 Dated: 02.09.2016
* Sample ID	: RCC Drain Bed Slab Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
* Grade of Concrete	: M_{20}
Compressive Strength as on	: 7^{th} day
Sample Received on	: 13.09.2016

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	06.09.2016	13.09.2016	8.258	342.6	15.23
2	06.09.2016	13.09.2016	8.347	356.7	15.85
3	06.09.2016	13.09.2016	8.483	369.8	16.44

* Information is furnished by the Customer/Representative

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CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

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T-2377

Job No.: CTCE/BBMP/WNo.13/KRIDL/CSR-09/134a/CUBE/2016-17 04.10.2016

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

* Customer	: **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	: **Technical Manager (West),** KRIDL, Bangalore.
* Name of the work	: Improvements of CC roads and drains at Lake side Avenue Defence Colony and Shanthi Layout and other roads in Ward No. 13, Shettyhalli Sub Division, BBMP, Bangalore.
Reference	: AEE/SSD/PR/61/2016-17 Dated: 02.09.2016
* Sample ID	: RCC Drain Bed Slab Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
* Grade of Concrete	: M_{20}
Compressive Strength as on	: 28^{th} day
Sample Received on	: 04.10.2016

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	06.09.2016	04.10.2016	8.165	476.8	21.19
2	06.09.2016	04.10.2016	8.242	491.4	21.84
3	06.09.2016	04.10.2016	8.359	511.3	22.72

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T-2377

Job No.: CTCE/BBMP/WNo.13/KRIDL/CSR-09/134a/CUBE/2016-17 15.09.2016

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

* Customer	: **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	: **Technical Manager (West),** KRIDL, Bangalore.
* Name of the work	: Improvements of CC roads and drains at Lake side Avenue Defence Colony and Shanthi Layout and other roads in Ward No. 13, Shettyhalli Sub Division, BBMP, Bangalore.
Reference	: AEE/SSD/PR/61/2016-17 Dated: 02.09.2016
* Sample ID	: RCC Drain Side Wall Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
* Grade of Concrete	: M_{20}
Compressive Strength as on	: 7^{th} day
Sample Received on	: 15.09.2016

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	08.09.2016	15.09.2016	8.142	341.2	15.16
2	08.09.2016	15.09.2016	8.218	359.8	15.99
3	08.09.2016	15.09.2016	8.361	368.3	16.37

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CIVIL-TECH CONSULTANTS AND ENGINEERS

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T-2377

Job No.: CTCE/BBMP/WNo.13/KRIDL/CSR-09/134a/CUBE/2016-17 06.10.2016

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

* Customer	: **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	: **Technical Manager (West),** KRIDL, Bangalore.
* Name of the work	: Improvements of CC roads and drains at Lake side Avenue Defence Colony and Shanthi Layout and other roads in Ward No. 13, Shettyhalli Sub Division, BBMP, Bangalore.
Reference	: AEE/SSD/PR/61/2016-17 Dated: 02.09.2016
* Sample ID	: RCC Drain Side Wall Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
* Grade of Concrete	: M_{20}
Compressive Strength as on	: 28^{th} day
Sample Received on	: 06.10.2016

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	08.09.2016	06.10.2016	8.149	477.8	21.24
2	08.09.2016	06.10.2016	8.281	492.8	21.90
3	08.09.2016	06.10.2016	8.316	510.3	22.68

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Job No.: CTCE/BBMP/WNo.13/KRIDL/CSR-09/134a/CUBE/2016-17 17.09.2016

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

* Customer	: **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	: **Technical Manager (West),** KRIDL, Bangalore.
* Name of the work	: Improvements of CC roads and drains at Lake side Avenue Defence Colony and Shanthi Layout and other roads in Ward No. 13, Shettyhalli Sub Division, BBMP, Bangalore.
Reference	: AEE/SSD/PR/61/2016-17 Dated: 02.09.2016
* Sample ID	: RCC Drain Covering Slab Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
* Grade of Concrete	: M_{20}
Compressive Strength as on	: 7^{th} day
Sample Received on	: 17.09.2016

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	10.09.2016	17.09.2016	8.259	342.9	15.24
2	10.09.2016	17.09.2016	8.347	353.5	15.71
3	10.09.2016	17.09.2016	8.415	372.8	16.57

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Job No.: CTCE/BBMP/WNo.13/KRIDL/CSR-09/134a/CUBE/2016-17 08.10.2016

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

* Customer	: **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	: **Technical Manager (West),** KRIDL, Bangalore.
* Name of the work	: Improvements of CC roads and drains at Lake side Avenue Defence Colony and Shanthi Layout and other roads in Ward No. 13, Shettyhalli Sub Division, BBMP, Bangalore.
Reference	: AEE/SSD/PR/61/2016-17 Dated: 02.09.2016
* Sample ID	: RCC Drain Covering Slab Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
* Grade of Concrete	: M_{20}
Compressive Strength as on	: 28^{th} day
Sample Received on	: 08.10.2016

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	10.09.2016	08.10.2016	8.295	484.9	21.55
2	10.09.2016	08.10.2016	8.374	499.8	22.21
3	10.09.2016	08.10.2016	8.451	514.5	22.87

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Job No.: CTCE/BBMP/WNo.13/KRIDL/CSR-09/134a/Precast Slab/2016-17 13.09.2016

CEMENT CONCRETE CORE (PRECAST SLAB) TEST REPORT

* Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of work	:	Improvements of CC roads and drains at Lake side Avenue Defence Colony and Shanthi Layout and other roads in Ward No. 13, Shettyhalli Sub Division, BBMP, Bangalore.
Reference	:	AEE/SSD/PR/61/2016-17 Dated: 02.09.2016
Techinical Reference	:	IS:516-1959 (Reaffirmed 2008), SP-24:1983.
Sample ID	:	Precast Slab
Sample Received on	:	08.09.2016
Date of Testing	:	13.09.2016

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	76.00	0.378	2533.08	1.52	0.965	32.5	16.57	17.89	17.27	21.58
2	50.00	78.00	0.392	2559.54	1.56	0.960	32.9	16.75	18.09	17.37	21.71
3	50.00	77.00	0.391	2586.16	1.54	0.970	33.1	16.87	18.22	17.67	22.09

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Job No.: CTCE/BBMP/WNo.13/KRIDL/CSR-09/134a/Precast Slab/2016-17 13.09.2016

CEMENT CONCRETE CORE (PRECAST SLAB) TEST REPORT

* Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
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Reference	:	AEE/SSD/PR/61/2016-17 Dated: 02.09.2016
Techinical Reference	:	IS:516-1959 (Reaffirmed 2008), SP-24:1983.
Sample ID	:	Precast Slab
Sample Received on	:	08.09.2016
Date of Testing	:	13.09.2016

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	76.00	0.378	2533.08	1.52	0.965	32.5	16.57	17.89	17.27	21.58
2	50.00	78.00	0.392	2559.54	1.56	0.960	32.9	16.75	18.09	17.37	21.71
3	50.00	77.00	0.391	2586.16	1.54	0.970	33.1	16.87	18.22	17.67	22.09

* Information is furnished by the Customer/Representative

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